

Please add the following new claims:

19. (Newly added) A membrane module according to claim 13 wherein the rod ends have a smaller dimension than a main part of the ceramic filter elements.

20. (Newly added) The membrane module according to claim 17, further comprising a collar embedded in the finished seal.

REMARKS

Claims 10 to 18 remain in the application. Claims 19 and 20 have been newly added.

The claims have been amended to refer to elements in a consistent manner, to provide proper antecedent basis for elements, and to correct awkward wording.

As such, claims 10 to 18 have been clarified by amendment for purposes of form. It is respectfully submitted that the amendments to claims 10 to 18 are neither narrowing nor made for substantial reasons related to patentability as defined by the Court of Appeals for the Federal Circuit (CAFC) in Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 95-1066 (Fed. Cir. 2000). Therefore, the amendments to claims 10-18 do not create prosecution history estoppel and, as such, the doctrine of equivalents is available for all of the elements of claims 10 to 18.

Claims 19 and 20 have been added to claim features previously claimed in the alternative in claims 14 and 18 respectively.

Consideration and allowance of the claims is respectfully requested.

Attached hereto is a marked up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made."

January 17, 2002
Date

Respectfully submitted:

Charles N. J. Ruggiero
Charles N. J. Ruggiero
Attorney for Applicants
Registration No. 28,468
Ohlandt, Greeley, Ruggiero &
Perle, L.L.P.
One Landmark Square, 10th Floor
Stamford, CT 06901-2682
(203) 327-4500

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In The Claims

Please amend the claims as follows:

10. (Amended) A process for the production of a membrane module for filtering a medium, the membrane module [, comprising a number of rod-shaped,] having at least one ceramic filter [elements which are arranged parallel to one another and] element with rod ends that are clamped [at the rod ends] by covers[, which in turn run] that are perpendicular to [rods] the at least one element, [and also] the membrane module having seals[, which are] provided between the rod ends [of the rods, as well as] and openings in the covers, [which is characterized by the following features] the process comprising:

forming a blank seal [the individual seal is produced in part] by making [its] an inner opening[s] of a seal to [the] a finished size[, which is specified] for enclosing [the end] one of the rod ends, while [the] an outer surface of the seal remains unprocessed[, so that a blank seal is formed];

[then] attaching the inner opening of the blank seal [is attached onto] to an attachment region of a holder[, which has] having an outer [dimensions] dimension [in the attachment region] that [correspond] corresponds to [the] an average outer dimension of [all filter elements or] a plurality of ceramic filter elements;

[then] forming a finished seal by processing the outer surface of the blank seal attached to the holder [is processed on its outer surface,] so that [it] the outer surface attains a nominal size [and thus becomes the finished seal];

[then] attaching the finished seal [is attached onto the terminal region of a filter element] to at least one of the rod ends; and[, together with the other elements,]

[is assembled into] assembling the attached finished seal into a finished membrane module.

11. (Amended) The process according to claim 10, [further characterized in that the terminal regions of each filter element are under-dimensioned relative to the] wherein the at least one of the rod ends has a smaller dimension than a main region of the at least one ceramic filter element.

12. (Amended) The process according to claim 1, [further characterized in that the terminal regions of filter elements are] wherein the at least one of the rod ends is reinforced at least on [their] a lateral [surfaces, and optionally on their front surfaces] surface so that there is no contact between the medium and the [material of the] finished seal during operation of the membrane module.

13. (Amended) A membrane module for filtering a medium to at least yield a permeate, the membrane module produced according to [the method of claim 10,] a process including:

forming a blank seal by making an inner opening of a seal to a finished size for enclosing a rod end of a ceramic filter element, while an outer surface of the seal remains unprocessed;

attaching the inner opening of the blank seal to an attachment region of a holder having an outer dimension that corresponds to an average outer dimension of a plurality of the ceramic filter elements;

forming a finished seal by processing an outer surface of the blank seal attached to the holder so that the outer surface attains a nominal size; and

attaching the finished seal to at least one rod end,

wherein the membrane module comprises:

[with a number of] a plurality of the [rod-shaped] ceramic filter elements
[wherein the rods are] arranged parallel to one another; and

[clamped on their ends by] covers clamping the rod ends, [which in turn run]
wherein the covers are perpendicular to the [rods] ceramic filter elements,
and are the components of a housing[,] which encloses the [rods] ceramic
filter elements; and

the finished seal[s are] provided between the ends of the rods and [the]
openings in the covers.

14. (Amended) A membrane module according to claim 13 [with a number of
rod-shaped ceramic filter elements wherein the rods are arranged parallel to one
another, and are clamped on their ends by covers which run perpendicularly to the
rods and are components of a housing, which encloses the rods; and seals are
provided between the ends of the rods and openings in the covers; and the
terminal regions of the rods] wherein the rod ends are the same size as [the] a
main [parts] part of the [rods or are under-dimensioned relative to the main part]
ceramic filter element.

15. (Amended) A membrane module according to claim 13 [with a number of
rod-shaped ceramic filter elements wherein the rods are arranged parallel to one
another, and are clamped on their ends by covers which in turn run perpendicular
to the rods and are the components of a housing, which surrounds the rods; and
seals are provided between the ends of the rods and openings in the covers; and
the terminal regions of the rods] , wherein the rod ends are reinforced at least on
[their] a periphery [and also optionally on their front side,] so that the medium to be
filtered cannot come into contact with the [material of the] finished seal.

16. (Amended) The membrane module according to claim 13, further
[characterized in that the] comprising a permeate outlet connection [is] arranged

on the housing such that [the] an inside space of the housing is completely emptied of permeate when the module is not in operation.

17. (Amended) The membrane module according to claim 13, [further characterized by the following features:] wherein each cover comprises an outer plate, an inner plate, [as well as a seal,] and the finished seal enclosed between [these] the inner and outer plates[;], a free space [remains] is provided radially outside the finished seal between the outer plate and the inner plate[, radially outside the seal;], and the finished seal is reinforced on [its] a periphery such that [its] extension of the finished seal [out] into the free space when the outer plate and the inner plate are clamped together is hindered [or completely eliminated].

18. (Amended) The membrane module according to claim 17, further [characterized in that] comprising a collar [surrounds] surrounding the finished seal in [the] a region of the free space [or is embedded in seal].

Please add the following new claims:

19. (Newly added) A membrane module according to claim 13 wherein the rod ends have a smaller dimension than a main part of the ceramic filter elements.

20. (Newly added) The membrane module according to claim 17, further comprising a collar embedded in the finished seal.